

## **REMARKS**

Claims 1-72 are now pending in the application. The amendments to claims 1, 9, 17, 25, 33, 41, 49, 57 and 65 are supported throughout the drawings and specification. As such, no new matter is added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **REJECTION UNDER 35 U.S.C. § 103**

Claims 1-5, 8-13, 16-21, 24-29, 32-37, 40-45, 48-53, 56-61, 64-69 and 72 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dankberg (U.S. Pat. No. 5,596,439) and Hardy (U.S. Pat. No. 6,556,677) and further in view of Razavi et al. (U.S. Pat. No. 6,606,489). This rejection is respectfully traversed.

With respect to claim 1, the alleged combination fails to show, teach, or suggest at least that when one of the first and second single-ended replica transmission signals is asserted, the other of the first and second single-ended replica transmission signals has a value of zero, and that the third sub-circuit includes only a single differential operational amplifier.

It is a longstanding rule that to establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 143 (CCPA 1974), see MPEP §2143.03. Furthermore, when evaluating claims for obviousness under 35 U.S.C. §103, all of the limitations must be considered and given weight. *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), MPEP § 2144.03. Here, the alleged combination fails to disclose at least the limitations that: i) when one of the first and second single-ended replica transmission

signals is asserted, the other of the first and second single-ended replica transmission signals has a value of zero; and ii) the third sub-circuit includes only a single differential operational amplifier.

As described in an exemplary embodiment in FIG. 3 of the present application, a converter circuit 140 receives first and second single-ended replica transmission signals  $V_{\text{TXR}+}$  and  $V_{\text{TXR}-}$  from a transmission signal replicator 86. The converter circuit 140 outputs a differential replica transmission signal  $V_{\text{TXR}}$  based on the first and second single-ended replica transmission signals. More specifically, the converter circuit includes **a single differential operational amplifier** that receives each of the single-ended replica transmission signals and outputs the differential replica transmission signal. Applicant notes that this structure is in contrast to the multiple differential operational amplifiers shown in FIG. 2. As described in Paragraph [0025], the single differential operational amplifier structure "is made possible by the fact that the single-ended replica transmission signals  $V_{\text{TXR}+}$  and  $V_{\text{TXR}-}$  produced by the transmission signal replicator 86 in the illustrated embodiment are characterized by the feature that when  $V_{\text{TXR}+}$  is asserted then  $V_{\text{TXR}-}$  is zero (or ground), and when  $V_{\text{TXR}-}$  is asserted then  $V_{\text{TXR}+}$  is zero (or ground).

As best understood by Applicant, the alleged combination appears to be absent of any teaching or suggestion of this structure. For example, the Examiner relies on FIG. 3 of Hardy to disclose the third sub-circuit. Applicant respectfully notes that FIG. 3 of Hardy appears to be absent of a third sub-circuit that includes only **a single differential operational amplifier**.

The Examiner further relies on Hardy to disclose the first and second single-ended replica transmission signals, citing Column 4, Lines 33-37 and Lines 45-49. Applicant respectfully submits that the cited portions of Hardy appear to be absent of any teaching or suggestion that when one of the first and second single-ended replica transmission signals is asserted, the other of the first and second single-ended replica transmission signals has a value of zero.

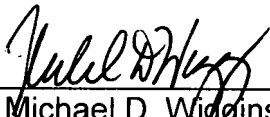
Applicant respectfully submits that claim 1, as well as its dependent claims, should be allowable for at least the above reasons. Claims 9, 17, 25, 33, 41, 49, 57, and 65, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By:   
Michael D. Wiggins  
Reg. No. 34,754

Damian M. Aquino  
Reg. No. 54,964

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

MDW/DMA/lah